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A revision of Western Palaearctic *Medon*. IV. A new species and new records from Iran, and a catalogue of species (Coleoptera: Staphylinidae, Paederinae)

V. ASSING

A b s t r a c t : *Medon frischi* sp.n. of the *M. fuscus* group is described, illustrated, and distinguished from *M. paradisiacus* ASSING. The similarly derived aedeagal morphology suggests that these two species are adelphotaxa. Additional records of *M. fuscoides* COIFFAIT are reported. The distribution of *M. fuscoides* is mapped. A synonymic catalogue of the Western Palaearctic representatives of the genus is provided.

K e y w o r d s : Coleoptera, Staphylinidae, Paederinae, *Medon*, Palaearctic region, Iran, taxonomy, new species, new records.

Introduction

According to a recent revision, the genus *Medon* STEPHENS (ASSING 2004a, 2004b, in press), is represented in the Western Palaearctic region by 52 species and subspecies in the Western Palaearctic region, disregarding five species of doubtful status or identity. In the Eastern Mediterranean and adjacent regions, the most diverse species group is the *M. fuscus* group. Two species of this group have become known from Iran: *M. sparsiventris* EPPELSHEIM and *M. fuscoides* COIFFAIT. So far, it has not been possible to study the types of a third name, *M. kopetdaghi* GUSAROV, but the illustrations and details indicated in the original description suggest that it is synonymous with *M. sparsiventris*. Only few specimens had previously been available from Iran, so that it did not come as a surprise that new material collected by Johannes Frisch (Berlin) in summer 2004 contained an undescribed species of the *M. fuscus* group. In addition, it included specimens of *M. fuscoides* from several localities, which are listed here.

Material and measurements

The material referred to in this study is deposited in the following public institution and private collection:

MNHUB Museum für Naturkunde der Humboldt-Universität Berlin (J. Frisch)

cAss author's private collection

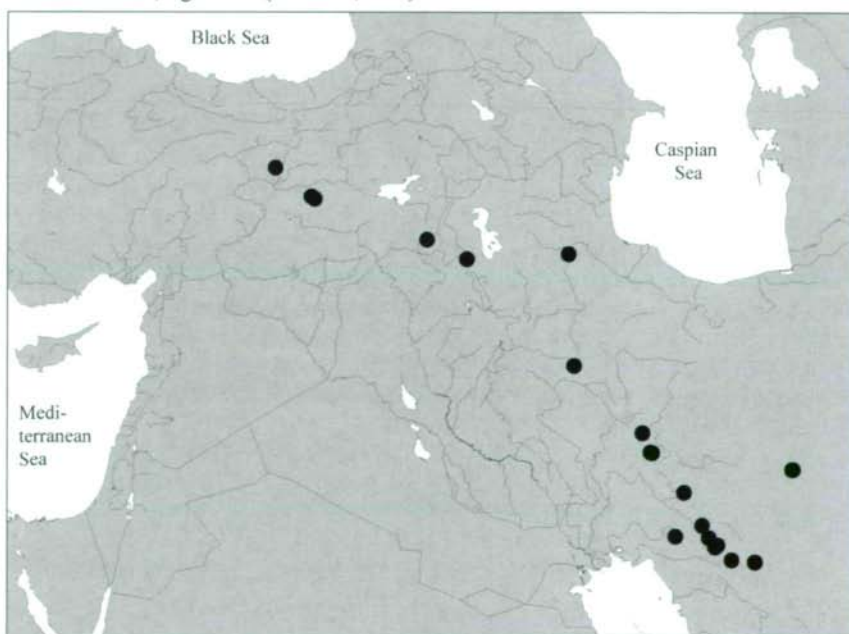
Head length was measured from the anterior margin of the clypeus to the posterior margin of the head, elytral length at suture from the apex of the scutellum to the posterior margin of the elytra.

The map was generated using the online generic mapping tool (GMT) of the Geomar website at www.aquarius.geomar.de/omc.

Species description and additional records

Medon fusculoides COIFFAIT

Additional material examined: Iran: 3 exs. (partly teneral), Esfahan province, SW Komeh, Khafr, 31°00'11"N, 51°30'01"E, 2150 m, 6.VII.2004, leg. Frisch (MNHUB, cAss); 2 exs., Esfahan province, S Fereydun Shahr, Sibak: Kamran, 32°44'27"N, 50°00'43"E, 2600 m, 1.VII.2004, leg. Frisch (MNHUB, cAss); 4 exs. (partly teneral), Esfahan province, S Fereydun Shahr, Gukan, 32°42'36"N, 50°05'16"E, 2260 m, 2.VII.2004, leg. Frisch (MNHUB, cAss); 2 exs., Lorestan province, S Aligudarz, Tiran, 33°11'18"N, 49°47'52"E, 2350 m, 29.VI.2004, leg. Frisch (MNHUB, cAss); 1 ex., Lorestan province, SE Dorud, Saravand (Oshtoran Kuh), 2050 m, 27.VI.2004, leg. Frisch (MNHUB); 21 exs. (partly teneral), Chahar Mahal va Bakhtiari province, Lordegan, 5 km from Lordegan Fall, 31°46'23"N, 50°58'50"E, 6.VII.2004, leg. Frisch (MNHUB, cAss); 3 exs., Fars province, Yasuj-Kakan road, Baba Hasan pass, 30°41'44"N, 51°40'58"E, 2450 m, 9.VII.2004, leg. Frisch (MNHUB, cAss); 4 exs., Fars province, S Kakan, Dasht-e Khoshk, 30°29'28"N, 51°51'28"E, 2400 m, 7.VII.2004, leg. Frisch (MNHUB, cAss); 22 exs., Fars province, Margoon, 30°31'35"N, 51°54'47"E, 2040 m, 9.VII.2004, leg. Frisch (MNHUB, cAss); 5 exs., Kermanshah province, 25 km E Sonqor, Tappeh, 34°43'48"N, 47°53'22"E, 1700 m, 23.VI.2004, leg. Frisch (MNHUB, cAss).



Map 1: Distribution of *Medon fusculoides* COIFFAIT in Turkey, Armenia, and Iran, based on revised records.

Comments: The species has become known from eastern Anatolia, Armenia, and Iran, where it is apparently rather common (Map 1). For more records see ASSING (2004a, in press). Part of the material collected in July is teneral.

***Medon frischeri* sp.n. (Figs 1-2, 4-11)**

Holotype ♂: IRAN, Chahar Mahal va Bakhtiari Province, Lordegan: 5 km to Lordegan Fall, N 31°46'23", E 050°58'50", 06.07.2004, leg. J. Frisch (MNHUB). **Paratypes:** 4♂♂, 7♀♀: same data as holotype (MNHUB, cAss).

Description: 4.0-5.0 mm. Facies as in Fig. 1. Coloration: Head blackish brown to black, usually distinctly darker than pronotum and elytra; pronotum reddish to dark brown, often with the anterior angles more or less extensively paler than disc; elytra yellowish to reddish brown; abdomen anteriorly brown to dark brown, apically reddish; legs and antennae reddish to reddish brown.

Head approximately 1.1 times as long as wide; eyes relatively large and distinctly projecting from lateral outline of head, usually slightly more than half the length of postocular region in dorsal view; puncturation dense, shallow, and areolate, mostly well-defined; interstices distinctly narrower than punctures and with microsculpture (Fig. 2).

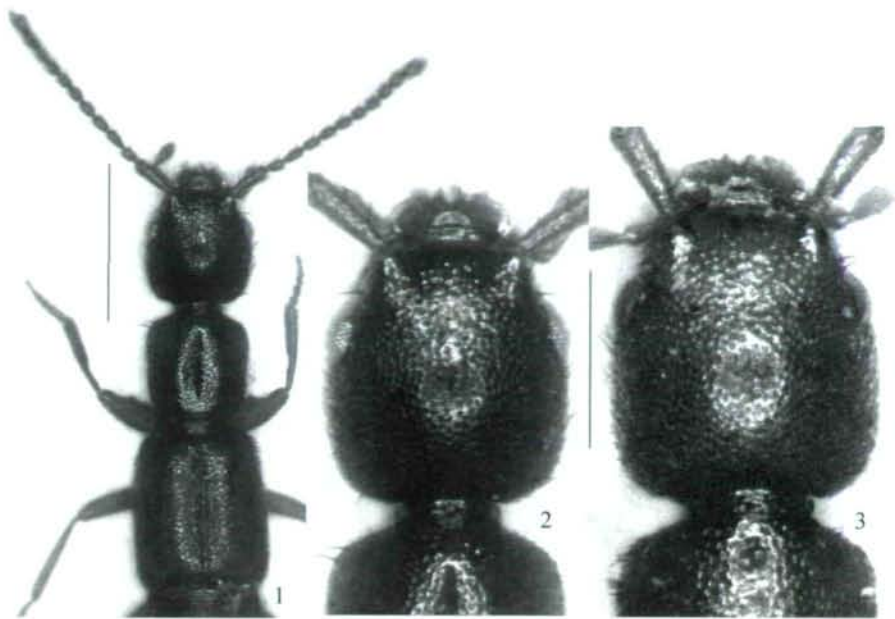
Pronotum approximately as wide as or slightly narrower than head, and approximately as wide as long (Fig. 1); puncturation similar to that of head, but less dense and not distinctly areolate; interstices at most with very weak microsculpture. Legs, antennae, and abdomen of similar morphology as in other species of the *M. fuscus* group.

♂: posterior margin of sternite VII deeply excavate, in the middle weakly bisinuate and with long marginal setae not distinctly arranged in two clusters, on either side with comb of ca. 8-10 palisade setae (Fig. 4); sternite VIII of similar morphology as in other species of the *M. fuscus* group; aedeagus with apex of distinctive, though somewhat variable morphology (Figs 5-11).

Etymology: The species is dedicated to Johannes Frisch (MNHUB), who collected the type series.

Comparative notes: From other species of the *M. fuscus* group, *M. frischeri* can reliably be separated only based on the morphology of the aedeagus. The only other species with a similar shape of the aedeagal apex is *M. paradisiacus* ASSING from the Caucasus region. From the latter, the new species is separated by the distinctly bi-coloured body (in *M. paradisiacus* more or less uniformly reddish), a relatively shorter head (in *M. paradisiacus* more distinctly oblong; see Fig. 3), the larger and more bulging eyes (in *M. paradisiacus* less than half the length of postocular region in dorsal view; see Fig. 3), the distinctly larger and longer elytra, and the different shape of the aedeagal apex. For comparison see the illustrations in Assing (2004a) and Fig. 12.

Distribution and bionomics: The type locality is situated in western Iran at an altitude of 1500 m. The specimens were collected on a gravel bank of a stream with sycamore trees by patting and sieving the moist gravel (FRISCH, pers. comm.). *Medon fuscoides* was found in the same locality. Some of the type specimens are teneral.



Figs 1-3: *Medon frischi* sp. n. (1-2) and *M. paradisiacus* ASSING (3): 1 – forebody; 2-3 – head. Scale bars: 1: 1.0 mm; 2-3: 0.5 mm.

Catalogue of the *Medon* species of the Western Palaearctic region

In the catalogue below, the references are abbreviated as follows: A98 = ASSING (1998), A04a = ASSING (2004a), A04b = ASSING (2004b), Aip = ASSING (in press), App = present paper; AW01 = ASSING & WUNDERLE (2001). The references containing diagnoses and/or illustrations of morphological characters are given in bold print, those providing distribution maps are underlined.

(sub-)species	distribution	references
<i>abantensis</i> BORDONI 1980	N-Anatolia, W-Caucasus	A04a, A04b
<i>africanus</i> (FAUVEL 1872) = <i>bodemeyeri</i> BERNHAUER 1915	Algeria, Tunisia	Aip
<i>atricola</i> ASSING in press	Canary Islands: El Hierro	Aip
<i>apicalis</i> (KRAATZ 1857) = <i>orgianus</i> BORDONI 1980	Atlanto-Mediterranean: NW-Africa, Europe (except for the southeast)	A04a, A04b, Aip
<i>beroni</i> COIFFAIT 1969 = <i>creticus</i> SCHEERPELTZ i. l.	Greece: Crete	A04a, Aip
<i>beydaghensis</i> FAGEL 1969	SW-Anatolia: Antalya, Isparta	A04a, A04b
<i>brunneus</i> (ERICHSON 1839) = <i>megacephalus</i> (HEER 1839) = <i>monticola</i> (HAMPE 1867) = <i>olympicus</i> SCHEERPELTZ 1963	Adriato-Mediterranean: Europe, except for the extreme southwest	A04a, A04b, Aip
<i>bucharicus</i> BERNHAUER 1902	Middle Asia: Uzbekistan, Tajikistan, Kyrgyzstan	A04b, Aip

(sub-)species	distribution	references
<i>caricus</i> FAGEL 1970 = <i>marmaridis</i> FRANZ 1987	SW-Anatolia, Greece: Dhordhekanisos	A04a
<i>castaneus</i> (GRAVENHORST 1802) = <i>brevicornis</i> (LATREILLE 1804). = <i>quadratus</i> BECK 1817 = <i>ruddii</i> STEPHENS 1833	Atlanto-Mediterranean: Europe, except for the southeast	A04b, Aip
<i>cauchoisi</i> JARRIGE 1949 = <i>oculatio</i> PEYERIMHOFF 1949 = <i>lusitanicus</i> COIFFAIT 1970 = <i>parvipallus</i> COIFFAIT 1973 = <i>mazices</i> COIFFAIT 1973 = <i>fongondi</i> COIFFAIT 1980 = <i>perraulti</i> COIFFAIT 1980 = <i>cribriceps</i> SCHEERPELTZ i. l.	Atlanto-Mediterranean: SW-Europe, Morocco	Aip
<i>cerrutii</i> COIFFAIT 1976	Greece: Crete	A04a, Aip
<i>cyprensis</i> ASSING & WUNDERLE 2001	Cyprus	A04a, AW01
<i>despectus</i> (FAIRMAIRE 1860)	Algeria, Tunisia, Italy: Pantelleria	A04b, Aip
<i>dilutus cephalus</i> KOCH 1938 = <i>dilutus boeticus</i> JEANNEL & JARRIGE 1949	Atlanto-Mediterranean: SW- and W- Europe, S-England, Sardinia, Corsica?, S-Sweden?	Aip
<i>dilutus dilutus</i> (ERICHSON 1839) = <i>oppidanus</i> (KRAATZ 1857) = <i>dilutus meridionalis</i> BORDONI 1980	Adriato-Mediterranean: Central Europe, Italy, S-Sweden?	Aip
<i>dilutus pythonissa</i> (SAULCY 1864) = <i>brunneus robustior</i> ROUBAL 1920 = <i>haafi</i> SCHEERPELTZ 1956 = <i>mersinus</i> BORDONI 1980 = <i>erevanensis</i> COIFFAIT 196 = <i>macedonicus</i> COIFFAIT 1976	Eastern Mediterranean: Macedonia, Greece (including Crete, Karpathos, Sámos, Ikaria, and Rhodos), SE- Bulgaria, Turkey, Cyprus, Caucasus region, Ukraine, Middle East	A04a, A04b, Aip
<i>dilutus quadriceps</i> (WOLLASTON 1864) = <i>vitalei</i> BERNHAUER 1936 = <i>dilutus eremicus</i> KOCH 1939 = <i>algericus</i> JEANNEL & JARRIGE 1949 = <i>maroccanum</i> COIFFAIT 1970 = <i>mateui</i> COIFFAIT 1973	N-Africa, Canary Islands, Sicily, Azores?	Aip
<i>dobrogicus</i> DECU & GEORGESCU 1994	Romania	A04a
<i>felo</i> ASSING 1998	Canary Islands: La Palma	A98
<i>ferrugineus</i> (ERICHSON 1837) = <i>brancsiki</i> (EPPELSHEIM 1880) = <i>nitidus</i> PETRI 1891 = <i>orduanus</i> BORDONI 1980	Ponto-Mediterranean: Anatolia, SE- Europe, southeastern Central Europe	Aip
<i>frischii</i> sp. n.	Iran	App
<i>fusculoides</i> COIFFAIT 1969 = <i>amidanus</i> BORDONI 1978	E-Anatolia, Armenia, Iran	A04a, Aip, App
<i>fuscus</i> (MANNERHEIM 1830) = <i>fuscus</i> (LACORDAIRE 1835) = <i>testaceus</i> (LACORDAIRE 1835) = <i>rufus</i> (MULSANT & REY 1853) = <i>aurantica</i> (SAULCY 1864) = <i>infuscatus</i> (BAUDI 1870) = <i>deficiens</i> (HUBENTHAL 1911) = <i>abchasicus</i> (BERNHAEUER 1922) = <i>bulgaricus</i> (COIFFAIT 1970) = <i>gajaci</i> (COIFFAIT 1973) = <i>paradobrogicus</i> (DECU & GEORGESCU 1994)	Ponto-Mediterranean: Middle East, Anatolia, W-Caucasus, Europe, except for southwest	A04a, A04b, Aip

(sub-)species	distribution	references
<i>guignoti</i> COIFFAIT 1987 = <i>coriaceus</i> COIFFAIT 1969	N-Greece, Macedonia	A04a , Aip
<i>impar</i> ASSING 2004	Greece: Rhodos	A04a
<i>indigena</i> (WOLLASTON 1857)	Madeira, Porto Santo	Aip
<i>kabylicus</i> ASSING in press	Algeria: Grande Kabylie	Aip
<i>lamellatus</i> ASSING 2004	central S-Anatolia, central Anatolia	A04a , A04b
<i>lanugo</i> ASSING 2004	Anatolia	A04a , A04b , Aip
<i>lindbergi</i> SCHEERPELTZ 1958 = <i>scheerpeltzianus</i> FAGEL 1966 = <i>loebli</i> BORDONI 1980	Middle East, central S-Anatolia	A04a , A04b , Aip
<i>lydicus</i> BORDONI 1980 = <i>mimulus</i> FAGEL 1970 = <i>rhodicus</i> FRANZ 1987 = <i>choparti</i> COIFFAIT 1987 = <i>umbilicatus</i> COIFFAIT 1970	SE-Bulgaria, W-Turkey, Greek islands: Rhodos, Sámos, Ikária, Dhodhekánisos	A04a , Aip
<i>maronitus</i> (SAULCY 1864) = <i>marmarisensis</i> FAGEL 1970 = <i>alexandrinus</i> BORDONI 1980 = <i>turcmenus</i> GUSAROV 1995	Eastern Mediterranean, Caucasus region, Middle Asia	A04a , A04b , Aip
<i>mirei</i> COIFFAIT 1980 = <i>giachinoi</i> BORDONI 1988	N-Algeria	Aip
<i>oromii</i> ASSING in press	Canary Islands: Gran Canaria	Aip
<i>paradisiacus</i> ASSING 2004	Azerbaijan	A04a , App
<i>perniger</i> COIFFAIT 1978 = <i>pernigrum fraudulentum</i> COIFFAIT 1978	Italy, SE-France, S-Switzerland	Aip
<i>petrochilosii</i> COIFFAIT 1970 = <i>croaticus</i> TÓTH 1980	Greece, Croatia	A04a
<i>piceus</i> (KRAATZ 1858) = <i>muscolica</i> MULSANT & REY 1878 = <i>murciensis</i> COIFFAIT 1970	Atlanto-Mediterranean: W-Europe, Central Europe	Aip
<i>pocofer</i> (PEYRON 1857) = <i>maritimus</i> AUBÉ 1863	W- and S-Europe	A04a , Aip
<i>procerus</i> (PEREZ ARCAS 1874)	Spain	Aip
<i>ripicola</i> (KRAATZ 1854) = <i>kellneri</i> (KRAATZ 1875) = <i>pectiniventris</i> DONISTHORPE 1932	Atlanto-Mediterranean: N-Africa, Europe (including Azores and Madeira), except for the extreme southeast	A04a , Aip
<i>rufiventris</i> (NORDMANN 1837) = <i>anatolicus</i> COIFFAIT 1970 = <i>burdigalensis</i> COIFFAIT 1970 = <i>aquitanicus</i> COIFFAIT 1970 = <i>siculus</i> COIFFAIT 1970 = <i>sicilianus</i> COIFFAIT 1970	Ponto-Mediterranean: Europe, Anatolia	A04a , Aip
<i>sardous</i> DODERO 1922	Italy: Sardinia	Aip
<i>seleucus</i> BORDONI 1975 = <i>seleucus</i> BORDONI 1980	S-Anatolia: Antakya	A04a , A04b
<i>semiobscurus</i> (FAUVEL 1875) = <i>ruber</i> SAHLBERG 1908 = <i>sahlbergi</i> SCHEERPELTZ 1933 = <i>rhodiensis</i> SCHEERPELTZ 1963 = <i>clambus</i> FAGEL 1969 = <i>montisamani</i> SCHEERPELTZ i. l. = <i>opacicolis</i> SCHEERPELTZ i. l.	Eastern Mediterranean: Anatolia, Greece: Sámos & Rhodos, Middle East	A04a , A04b , Aip
<i>sequax</i> ASSING 2004	Armenia	A04a

(sub-)species	distribution	references
<i>sericellus</i> (FAIRMAIRE 1860)	N-Algeria, NW-Tunisia	Aip
<i>sparsiventris</i> EPPELSHEIM 1889 = <i>frater</i> BERNHAUER 1922 = <i>wittmeri</i> COIFFAIT 1976 ?= <i>kopetdaghi</i> GUSAROV 1995	N-Iran, Azerbaijan	A04a, Aip
<i>subcoriaceus</i> (WOLLASTON 1864)	Canary Islands	Aip
<i>subfuscus</i> FAGEL 1969 = <i>besucheti</i> BORDONI 1980 = <i>karatepense</i> BORDONI i. l	S-Anatolia: Antalya to Adana	
<i>subquadratus</i> ASSING 2004	S-Anatolia: Mersin	A04a, Aip
<i>vicentensis</i> SERRANO 1993	Madeira	Aip
Names/species of doubtful status		
<i>augur</i> FAUVEL 1906	Corsica	Aip
<i>exquisitus</i> KIRSHENBLAT 1951	Armenia	A04a
<i>molestus</i> ROUBAL 1920	unknown	A04b
<i>spelaeus</i> SCRIBA 1870	SE-Spain	Aip
<i>subterraneus</i> COIFFAIT 1970	Ibiza	Aip

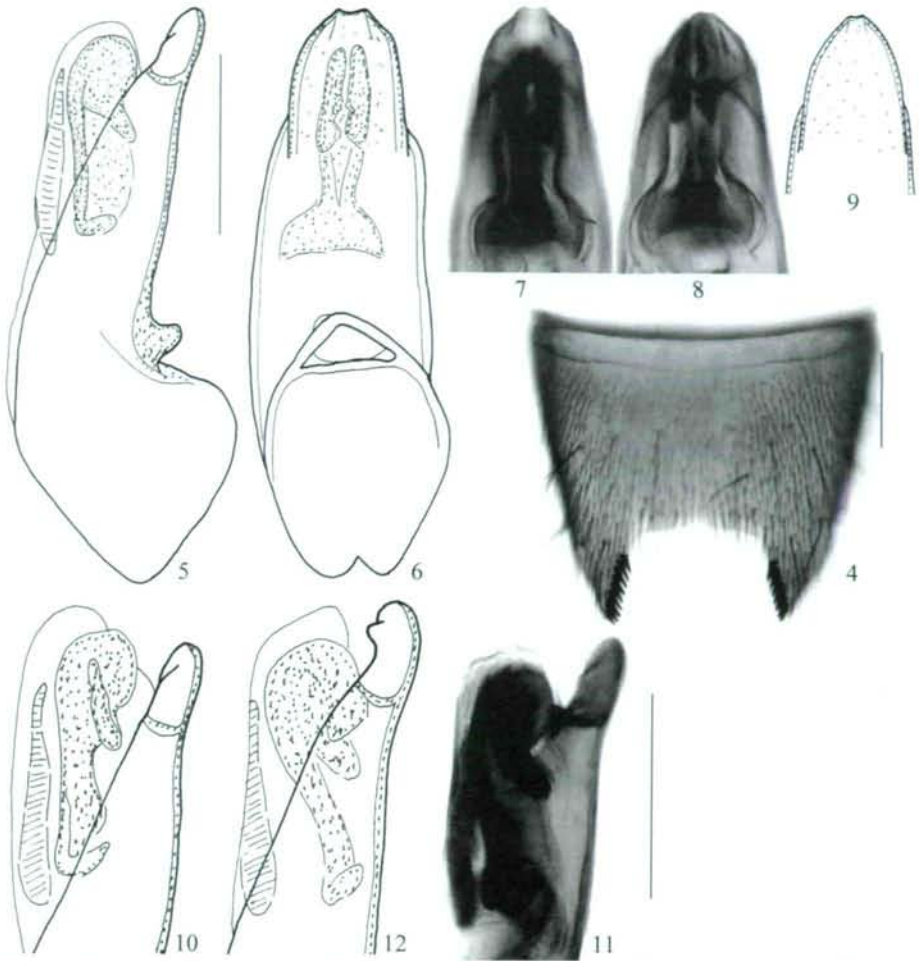
Zusammenfassung

Medon frischeri sp. n., eine Art der *M. fuscus*-Gruppe, wird beschrieben, abgebildet und insbesondere von *M. paradisiacus* ASSING unterschieden. Nach dem ähnlichen, synapomorphen Bau des Apex des Aedoeagus zu urteilen, sind beide Arten Adelphotaxa. Weitere Nachweise von *M. fuscoides* COIFFAIT werden aus dem Iran gemeldet; die derzeit bekannte Verbreitung dieser Art wird anhand einer Karte illustriert. Ein Katalog der westpaläarktischen Arten der Gattung wird erstellt.

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Figs 4-12: *Medon frischeri* sp. n. (5-11) and *M. paradisiacus* ASSING (12): 4 – ♂ sternite VII; 5-6 – aedeagus in lateral and in ventral view; 7-12 – apical part of aedeagus in lateral and in ventral view. Scale bars: 0.2 mm.